

CLAIMS

WHAT IS CLAIMED IS:

1. A door latch module for a self-cleaning oven comprising:
 - a support adapted to be mounted to the self-cleaning oven;
 - a motor maintained on said support;
 - a latching mechanism maintained by said support and driven by said motor;
 - a plurality of switches maintained on said support; and
 - a plurality of terminals associated with said plurality of switches, said plurality of terminals configured to connect to a single terminal interface.
2. The door latch module of claim 1, wherein said plurality of terminals is configured to connect to a single, quick-connect terminal interface.
3. The door latch module of claim 1, wherein at least some of said plurality of switches are actuated by said motor.
4. The door latch module of claim 1, wherein one of said plurality of switches includes a door position switch.
5. The door latch module of claim 1, further comprising a flat cam plate in communication with and driven by said motor, said flat cam plate operative to actuate at least some of said plurality of switches.

6. The door latch module of claim 5, further comprising a reciprocating cam coupled to said motor and said flat cam plate.

7. The door latch module of claim 6, wherein said reciprocating cam is coupled to said latching mechanism and operative to drive said latching mechanism.

8. A door latch for a self-cleaning oven comprising:

- a support adapted to be mounted to a self-cleaning oven;
- a cam maintained by said support;
- a cam plate coupled to said cam and driven by said cam;
- a motor coupled to said cam and operative to drive said cam;
- a latch mechanism coupled to and driven by said motor;
- a plurality of switches maintained on said support and selectively actuated by said cam plate; and
- a plurality of terminals associated with said plurality of switches and maintained on said support, said plurality of terminals ganged to permit connection to a single terminal interface.

9. The door latch of claim 8, wherein said plurality of terminals is ganged to permit connection to a single terminal modular interface.

10. The door latch of claim 8, wherein said plurality of terminals is ganged to permit connection to a single terminal quick-connect modular interface.

11. The door latch of claim 8, wherein one of said plurality of switches includes a door position switch.

12. The door latch of claim 8, wherein at least some of said plurality of switches are actuated by said cam.

13. The door latch of claim 8, further comprising a flat cam plate in communication with and driven by said cam, said flat cam plate in communication with at least some of said plurality of switches and operative to actuate the at least some of said plurality of switches.

14. In a self-cleaning oven having door hingedly attached to a frame, and a controller operative to control the self-cleaning oven, a door latch mechanism comprising:

a support coupled to the frame proximate the door;

a rotating cam maintained by said support;

a motor coupled to said rotating cam and operative to drive said rotating cam;

a cam plate coupled to said rotating cam and driven by said rotating cam;

a latch mechanism coupled to and driven by said motor, said latch mechanism driven by said motor to lock the door during a locking mode and to allow free movement of the door during a non-locking mode;

a plurality of switches maintained on said support; and

a plurality of terminals associated with said plurality of switches and maintained on said support, said plurality of terminals ganged to permit connection to a single point terminal connector.

15. The door latch mechanism of claim 14, wherein said plurality of terminals is ganged to permit connection to a single point modular terminal connector.

16. The door latch mechanism of claim 14, wherein said plurality of terminals is ganged to permit connection to a single point modular terminal connector of a wiring harness.

17. The door latch mechanism of claim 14, wherein said plurality of terminals is ganged to permit connection to a single point quick-connect terminal interface.

18. The door latch mechanism of claim 14, wherein one of said plurality of switches includes a door position switch.

19. The door latch mechanism of claim 14, wherein at least some of said plurality of switches are actuated by said reciprocating cam.

20. The door latch mechanism of claim 14, further comprising a flat cam plate in communication with and driven by said reciprocating cam, said flat cam plate in communication with at least some of said plurality of switches and operative to actuate the at least some of said plurality of switches.